

IN THE CLAIMS

Please amend claims 1, 12 and 23 as follows:

1. (Currently Amended) An electric motor, comprising:

a plurality of motor sections, wherein the plurality of motor sections are mechanically and electrically coupleable to form a single motor, each motor section including a modular rotor section and a modular stator section having a plurality of independent conductors; and
a bottom motor section electrically coupleable to a lower modular motor section ~~one~~ of the plurality of modular motor sections, the bottom motor section having a plurality of corresponding conductors to conductively connect the plurality of independent conductors to electrically couple the modular stator sections together to form a single stator.

2. (Previously Amended) The electric motor as recited in claim 1, wherein the plurality of motor sections includes:

a first motor section having a first modular rotor section and a first modular stator section; and

a second motor section having a second modular rotor section coupleable to the first modular rotor section and a second modular stator section electrically coupleable to the first stator section, wherein electricity flowing through the first and second modular stator sections produces a magnetic field to impart rotative motion in the rotor.

3. (Previously Amended) The electric motor as recited in claim 1, wherein the plurality of motor sections are coupleable fluidally to allow fluid to pass between the plurality of motor sections.

4. (Previously Amended) The electric motor as recited in claim 2, wherein the first motor section and the second motor section are coupleable fluidally to allow fluid to pass between the first and second motor sections.

5. (Previously Amended) The electric motor as recited in claim 2, wherein the second motor section is coupleable fluidally to an external device.

6. (Original) The electric motor as recited in claim 2, further comprising a seal disposed between the first motor section end and the second motor section.

7. (Original) The electric motor as recited in claim 1, wherein at least one modular stator section has a plurality of conductors terminating at a plurality of corresponding protrusions.

8. (Original) The electric motor as recited in claim 7, wherein at least one other modular stator section includes a plurality of conductive elements configured for engagement with the plurality of corresponding protrusions when the plurality of motor sections are mechanically coupled.

9. (Original) The electric motor as recited in claim 7 wherein the plurality of conductive elements each include a hollow receptacle configured to receive a corresponding protrusion.

10. (Original) The electric motor as recited in claim 2, further comprising a separate coupler disposed between the first and second motor sections to provide a mechanical and electrical coupling.

11. (Original) The electric motor as recited in claim 1, wherein at least one of the plurality of motor sections includes an outer housing having a threaded collar designed to engage an outer housing of the next sequential motor section.

12. (Currently Amended) A submersible pumping system, comprising:

a submersible electric motor, comprising:

a plurality of motor sections, wherein the plurality of motor sections are mechanically and electrically coupleable to form a single motor of a desired length, each motor section comprising:

a modular rotor section coupleable to an adjacent modular rotor section of an adjacent motor section to form a rotor; and

a modular stator section coupleable to an adjacent modular stator section of the adjacent motor section; and

a bottom motor section, wherein the modular stator section has a plurality of independent conductors that remain electrically disconnected until the bottom motor section is coupled ~~coupleable~~ to one of the plurality of modular motor sections to complete electrically a stator ~~formed by the plurality of modular stator sections and the bottom motor section~~; and

a submersible pump drivingly coupled to the rotor of the submersible electric motor.

13. (Previously Amended) The submersible electric motor as recited in claim 12, wherein the plurality of motor sections comprises:

a first motor section having a first rotor section and a first stator section; and

a second motor section having a second rotor section coupleable to the first rotor section and a second stator section electrically coupleable to the first stator section, wherein electricity flowing through the first and second stator sections produces a magnetic field to impart rotative motion in the rotor.

14. (Previously Amended) The system as recited in claim 12, further comprising a motor protector, wherein the plurality of motor sections are fluidally coupleable to allow fluid to pass between the first motor section and the motor protector.

15. (Withdrawn) A method for assembling a rotary electric motor, comprising:

manufacturing a plurality of motor sections, each having a modular stator section and a modular rotor

determining a desired motor horsepower for a given application; and

coupling a predetermined number of the plurality of motor sections to obtain the desired motor horsepower.

16. (Withdrawn) The method as recited in claim 15, further comprising forming a plurality of longitudinal slots through each modular stator and disposing an electrical conductor through each longitudinal slot.

17. (Withdrawn) The method as recited in claim 16, further comprising forming a connector on each rotor section to permit engagement with a next sequential rotor section.

18. (Withdrawn) The method as recited in claim 16, further comprising each electrical conductor having a terminal plug connector for engagement with a corresponding electrical conductor of a next sequential modular stator section.

19. (Withdrawn) The method as recited in claim 18, wherein forming includes disposing each conductive element in a polymeric insulating material.

20. (Previously Amended) The electric motor as recited in claim 2, comprising a third motor section adapted to complete electrically the single stator formed by the first modular stator section and the second modular stator section.

21. (Previously Amended) The electric motor as recited in claim 1, wherein each modular stator section comprises a first stator winding extending linearly through the modular stator section to a second stator winding extending linearly through an adjacent modular stator section.

22. (Previously Added) The electric motor as recited in claim 1, wherein the modular stator sections are coupled electrically in series.

23. (Currently Amended) An electric motor, comprising:

a plurality of motor sections, wherein the plurality of motor sections are mechanically and electrically coupleable to form a motor of a desired length, the plurality of motor sections having a plurality of each motor section including a modular rotor sections section and a plurality of corresponding modular stator sections having longitudinal conductors that remain electrically isolated until the longitudinal conductors are electrically coupled via a plurality of corresponding conductors disposed in a modular end section section having conductors extending longitudinally therethrough to produce a rotating magnetic field to impart rotative motion to a rotor disposed therein.

24. (Previously Added) The electric motor as recited in claim 23, wherein the plurality of modular stator sections are adapted to form a single stator from when electrically coupled in series.

25. (Previously Amended) The electric motor as recited in claim 23, comprising a bottom motor section adapted to complete electrically the modular stator sections.

REMARKS

In the Office Action, the Examiner rejected claims 1-14 and 20-25. Claims 1, 12 and 23 have been amended, claims 15 -19 were previously withdrawn and claims 1-14, 20-25 remain pending in the present application. All claim amendments are fully supported throughout the written description and figures of the specification.

Claims 1-2, 7-13 and 20-25 were rejected under 35 USC 102 (b) as anticipated by the Ekstromer reference, US Patent No. 1,960,484. Independent claims 1, 12 and 23 have been amended to clarify certain aspects of the invention, and the rejection is believed not applicable.

The Ekstromer reference describes a motive power unit that comprises "a plurality of fractional horsepower polyphase induction motors 17 of the squirrel cage type." (Page 2, lines 42-47) The individual motors are connected end-to-end to provide the desired power for the overall unit. Each motor functions as an independent motor and comprises a frame 22 carrying a suitable primary or stator winding 23 and a rotor 24 with a secondary winding 25. (Page 2, lines 63-70). The Ekstromer reference describes combining multiple motors together to increase the power output of the overall motive power unit to a desired level. Connection of the individual motors is simplified by forming mechanical and electrical connectors that are readily joined between adjacent motors.

However, the Ekstromer reference does not disclose, teach or suggest the construction of a single motor via individual, modular motor components that do not separately function as motors. Specifically, the Ekstromer reference does not disclose a plurality of motor sections that are mechanically and electrically coupleable to form "a single motor" with a plurality of modular stator sections where each stator section has a plurality of "independent" conductors, as recited in amended independent claim 1. Furthermore, the Ekstromer reference does not disclose a "bottom motor section" that may be coupled to a lower modular motor section and which includes a plurality of "corresponding conductors" to connect the plurality of independent connectors in forming "a single stator" as recited in the independent claim 1. Similarly, the Ekstromer reference does not disclose a plurality of motor sections that may be mechanically and

electrically coupled to form "a single motor" or a "bottom motor section, wherein the modular stator section has a plurality of independent connectors that remain electrically disconnected until the bottom motor section is coupled to one of the plurality of modular motor sections" to complete a stator, as recited in amended independent claim 12. Again, the Ekstromer reference does not disclose a plurality of motor sections having a plurality of modular stator sections with longitudinal conductors that "remain electrically isolated until the longitudinal conductors are electrically coupled via a plurality of corresponding conductors disposed in a modular end section" as recited in amended independent claim 23.

Claims 2, 7-11, 13, 20-22 and 24-25 variously depend from independent claims 1, 12 and 23. Those dependent claims are patentable for the reasons provided above with respect to the independent claims as well as for the unique subject matter recited in each dependent claim. Accordingly, claims 1-2, 7-13 and 20-25 are believed to be in condition for allowance.


Claims 3-5 and 14 were rejected under 35 USC 103 (a) as unpatentable over the Ekstromer reference in view of the Schob reference, US Patent No. 5,939,813. Claims 3-5 ultimately depend from independent claim 1, and the claim 14 depends from independent claim 12. Claims 3-5 and 14 are patentable for the reasons provided above with respect to the independent claims as well as for the subject matter recited in each dependent claim. The disclosure of the Schob reference does not obviate the deficiencies of disclosure in the Ekstromer reference. Accordingly, claims 3-5 and 14 are believed to be in condition for allowance.

Claim 6 was rejected under 35 USC 103(a) as unpatentable over the Ekstromer reference in view of the Rabson reference. Claim 6 ultimately depends from independent claim 1 and is patentable over the cited references for the reasons cited above with respect to independent claim 1. The Rabson reference does not obviate the deficiencies of the Ekstromer reference. Accordingly, claim 6 is believed to be in condition for allowance.

In view of the foregoing remarks, claims 1-14 and 20-25 are believed patentable over the cited references. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Applicant hereby petitions to extend the period for response by one month, from June 18, 2003 to July 18, 2003. The enclosed payment includes the fee associated with this extension in the amount of \$110.00 in accordance with 37 C.F.R. § 1.136.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Robert A. Van Someren', written over a horizontal line.

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